AIRFOIL

GRILLES
DUCT
FITTINGS

making it happen sooner...

DOOR GRILLES (DG)

Airfoil's Door Grilles are manufactured with the highest quality, lightweight, corrosion free anodised aluminium. This type of grill utilises extruded aluminium inverted "V" type blades that have a free area of approximately 65% which ensures maximum air flow at minimum sound levels. The door grille comes complete with an adjustable frame and spring clips that fit into the rear of the door insert to provide a flush appearance. Suitable for a 30mm to 45mm door thickness.

It is recommended for doors, walls or partitions whenever a site-proof return, relief or any transfer is required.

Door Grille Options

- *Available in any size*
- *Available in natural anodised or white powder coated. Other colours available on request*

Product specification codes:

DG Door grille

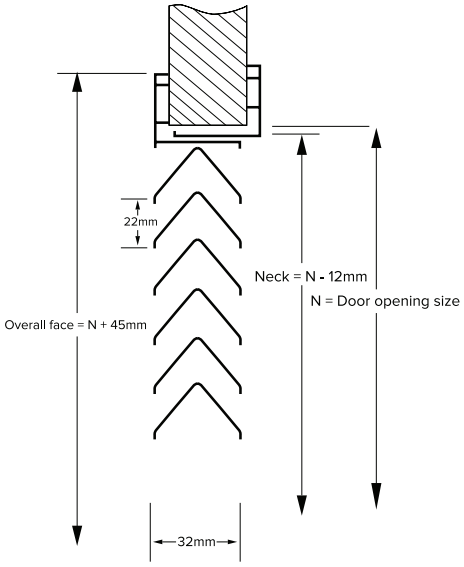
Specification: Product code + size.
Example: **DG 450x450** Door grille 450mm x 450mm

Quality System
Quality Endorsed Company
ISO 9001
SAI GLOBAL

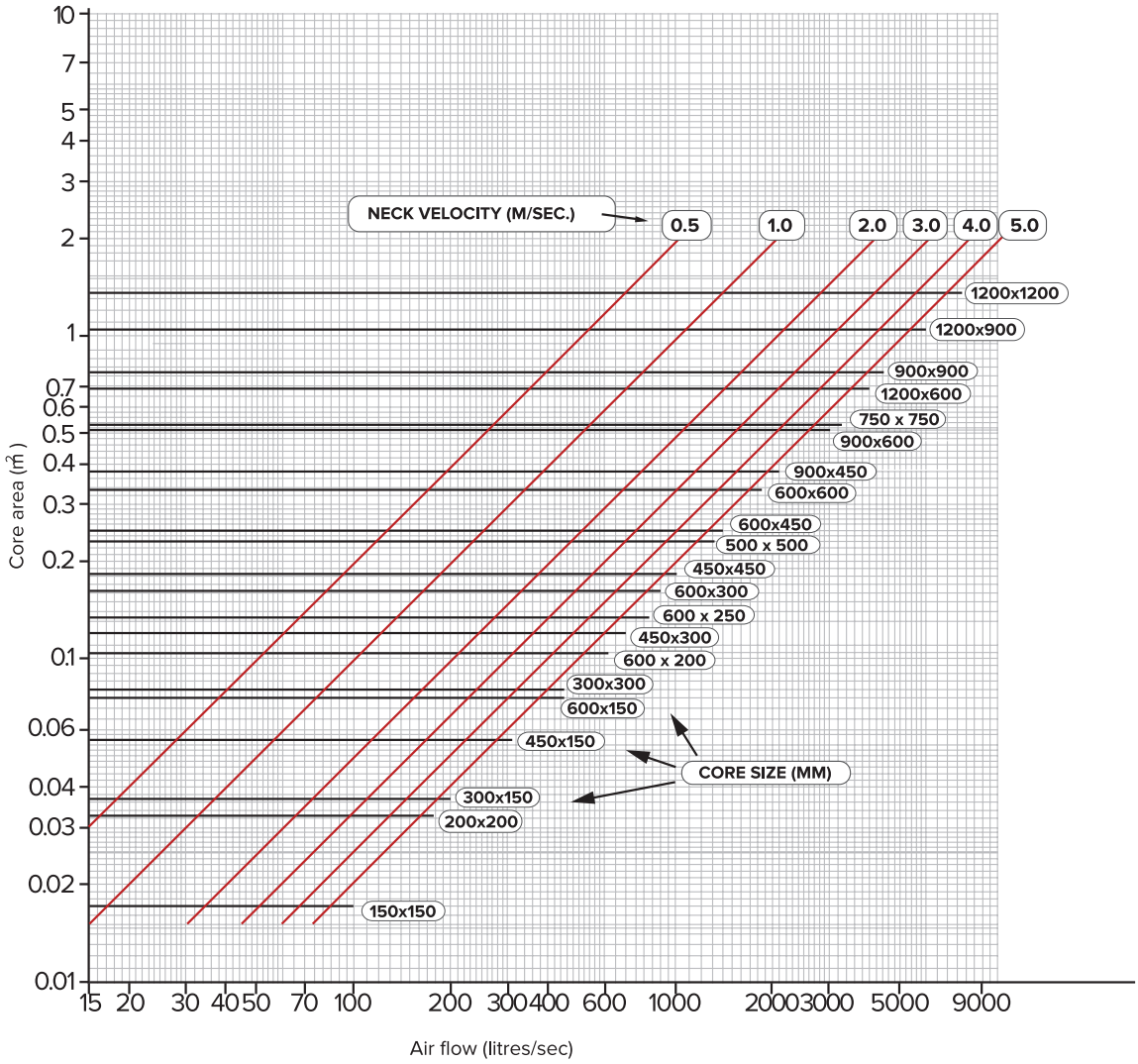
Celebrating 40 years
Established 1976

DOOR GRILLE

Cross Sectional Diagram



Static pressure vs airflow for various core sizes



DOOR GRILLE

Relief Air Door Grille - Model DG
Static pressure at various air quantities & neck areas

Static Pressure – Pa

Typical Neck Sizes:	300 x 150	450 x 150	600 x 150	600 x 200	450 x 300	600 x 250	600 x 300	450 x 450	600 x 450	600 x 600
Neck Area M2:	0.045	.068	0.090	0.120	0.135	0.150	0.180	0.203	0.270	0.360
L/S 30										
L/S 50	13									
L/S 75	35	15	9							
L/S 100	90	40	22	12	8	6				
L/S 150		62	35	18	14	12	8	5		
L/S 200			82	40	30	25	17	13	8	
L/S 250				75	55	45	30	24	13	8
L/S 300					85	70	45	37	20	12
L/S 400						100	68	52	28	17
L/S 500								90	50	30
L/S 600									808	45

Relief Air Door Grille - Model DG
Various neck velocities given airflow V neck area

Neck Velocity – Metres per Second

Typical Sizes	300 x 150	450 x 150	600 x 150	600 x 200	450 x 300	600 x 250	600 x 300	450 x 450	600 x 450	600 x 600	900 x 600	1200 x 600	900 x 900	1200 x 900	1200 x 1200
Neck Area M^2 L/S	0.045	0.068	0.090	0.120	0.135	0.150	0.180	0.203	0.270	0.360	0.540	0.720	0.810	1.080	1.440
30	0.75	0.5													
50	1.5		0.6	0.5											
75	2.25	1.5	1.0		0.6	0.5									
100	2.75	2.0	1.5	1.0			0.6	0.5							
150	4.0	2.75	2.0	1.5	1.25	1.1	0.9								
200	5.5	3.75	2.75	2.0	1.75	1.5	1.25	1.1	0.5						
250		4.5	3.0	2.75	2.0	1.75	1.5	1.4	1.0	0.75	0.5				
300		5.5	4.0	3.5	2.5	2.25	1.9	1.75	1.25			0.5			
400			5.0	4.0	3.5	3.0	2.5	2.25	1.75	1.25			0.5		
500				5.0	4.0	3.75	3.0	2.75	2.0	1.5	1.0			0.5	
600					5.0	4.75	3.75	3.25	2.5	1.75		0.75			0.5
750							5.0	4.5	3.0	2.5	1.5				
1000									4.0	3.0	2.0	1.5	1.0	1.0	
1500										4.5	3.0	2.25	2.0	1.5	1.0
2000											4.0	3.0	3.5	2.0	
3000											6.0	4.5	4.0	3.0	2.0
4000												6.0	5.0	4.0	3.0